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MATERIAL SAFETY DATA SHEET
                          * REVISION OF: 04/28/86
    SODIUM BICHROMATE
MCDONNELL DOUGLAS AIRCRET
                             DRDER NO: 560W46237
2900 E. COVER RD.
LONG BEACH CA 90846
     MCKESSON CHEMICAL COMPANY ONE POST STREET SAN FRANCISCO, CA 94104
             -------EMERGENCY ASSISTANCE---------
         FOR EMERGENCY ASSISTANCE INVOLVING CHEMICALS CALL CHEMTREC
                           (800) 424-9300.
            -----FOR PRODUCT AND SALES INFORMATION---------
           CONTACT YOUR LOCAL MCKESSON CHEMICAL COMPANY SERVICE CENTER
             PRODUCT NAME: SODIUM BICHROMATE
                                            CAS NO.: 10588-01-9
    COMMON NAMES/SYNONYMS: SODIUM
                                      MCKESSON CODE: T1131
    DICHROMATE; SODIUM DICHROMATE DIHYDRATE
    FORMULA: NA2 CR2 07 2H20
                                         DATE ISSUED: 04/86
    HAZARD RATING (NEPA 704)
                                          SUPERCEDES: NONE
                                         HAZARD RATING SCALE:
       HEALTH: 3
       FIRE: 0
                                         O=MINIMAL 3=SERIOUS
                                         1=SLIGHT 4=SEVÉRE
       REACTIVITY: 1
      SPECIAL: OXY
                                         2=MODERATE
           EXPOSURE LIMITS, MG/M3
                                OSHA ACGIH OTHER
           COMPONENT
                                 PEL TLV LIMIT
                                                      HAZARD
    SODIUM DICHROMATE DIHYDRATE >99 0.1 0.05 NONE TOXIC; OXIDIZER
                            (AS CR207) (AS CR)
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-----PHYSICAL PROPERTIES-----

BOILING POINT, DEG F: N/A

MELTING POINT, DEG F: 680

SPECIFIC GRAVITY (WATER=1): 2.35

APPEARANCE AND ODOR: ORANGE
RED CRYSTALS; NO ODOR

VAPOR PRESSURE, MM HG/20 DEG C: N/A

VAPOR DENSITY (AIR=1): N/A

RED CRYSTALS; NO ODOR

-----FIRST AID MEASURES-----

IF INHALED: REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET IMMEDIATE MEDICAL ATTENTION.

IN CASE OF EYE CONTACT: IMMEDIATELY FLUSH EYES WITH LOTS OF RUNNING WATER FOR 15 MINUTES, LIFTING THE UPPER AND LOWER EYELIDS OCCASIONALLY. GET IMMEDIATE MEDICAL ATTENTION.

IN CASE OF SKIN CONTACT: IMMEDIATELY FLUSH SKIN WITH LOTS OF RUNNING WATER FOR 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES; WASH BEFORE REUSE. GET IMMEDIATE MEDICAL ATTENTION.

IF SWALLOWED: IF CONSCIOUS, IMMEDIATELY INDUCE VOMITING BY GIVING 2 GLASSES OF WATER AND STICKING A FINGER DOWN THE THROAT. GET IMMEDIATE MEDICAL ATTENTION. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.

-----HEALTH HAZARD INFORMATION-----

PRIMARY ROUTES OF EXPOSURE: SKIN OR EYE CONTACT

SIGNS AND SYMPTOMS OF EXPOSURE

INHALATION: INHALATION OF DUST OR MIST MAY IRRITATE THE NASAL SEPTUM AND RESPIRATORY TRACT. PROLONGED OR REPEATED EXPOSURE MAY CAUSE ULCERATION AND PERFORATION OF THE NASAL SEPTUM.

EYE CONTACT: DUSTS WILL IRRITATE THE EYES AND PROLONGED CONTACT MAY PERMANENTLY DAMAGE THE EYES.

SKIN CONTACT: CONTACT WITH BROKEN SKIN MAY LEAD TO FORMATION OF FIRMLY MARGINATED "CHROME SORES". MASSIVE OVEREXPOSURE TO SOLUTIONS MAY ABSORB MATERIAL THROUGH THE SKIN WHICH COULD LEAD TO KIDNEY FAILURE AND DEATH.

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SWALLOWED: CAN CAUSE SEVERE TISSUE DESTRUCTION. KIDNEY FAILURE MAY FOLLOW AND RESULT IN DEATH.

CHRONIC EFFECTS OF EXPOSURE: PROLONGED OR REPEATED EYE CONTACT MAY CAUSE CONJUNCTIVITIS. PROLONGED OR REPEATED SKIN CONTACT, ESPECIALLY WITH BROKEN SKIN, MAY CAUSE "CHROME SORES". PROLONGED OR REPEATED BREATHING OF DUST OR MISTS MAY ULCERATE AND PERFORATE THE NASAL SEPTUM.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: NONE KNOWN.

TOXICITY DATA----

ORAL: RAT LD50 = 50 MG/KG

DERMAL: GUINEA PIG LDLO = 335 MG/KG

INHALATION: NO DATA FOUND.

CARCINOGENICITY: CHROMIUM AND CERTAIN UNSPECIFIED CHROMIUM COMPOUNDS ARE LISTED AS POTENTIAL HUMAN CARCINOGENS BY NTP AND IARC. THE NIOSH CRITERIA DOCUMENT FOR HEXAVALENT CHROMIUM COMPOUNDS (CR VI) RECOMMENDS THAT ALL CR (VI) COMPOUNDS BE CONSIDERED SUSPECT CARCINOGENS EXCEPT CHROMIC ACID AND CERTAIN OF ITS SALTS. NEVERTHELESS, SOME INVESTIGATORS BELIEVE THAT THESE SOLUBLE CR (VI) COMPOUNDS MAY PRESENT A CARCINOGENIC RISK UNDER SPECIAL CIRCUMSTANCES.

OTHER DATA: CHROMIUM (VI) COMPOUNDS IN THE FORM OF CHROMATES AND DI-CHROMATES HAVE BEEN FOUND TO BE MUTAGENIC IN BACTERIAL AND MAMMALIAN CELLS, INCLUDING THOSE OF THE CHINESE HAMSTER.

------PERSONAL PROTECTION-----

VENTILATION: LOCAL MECHANICAL EXHAUST VENTILATION CAPABLE OF MAIN-TAINING DUST EMISSIONS AT THE POINT OF USE BELOW THE PEL.

RESPIRATORY PROTECTION: NIOSH-APPROVED RESPIRATOR IN ADDITION TO ADEQUATE ENVIRONMENTAL CONTROLS AT THE POINT OF USE.

EYE PROTECTION: CHEMICAL GOGGLES AND FULL FACE SHIELD.

PROTECTIVE CLOTHING: LONG-SLEEVED SHIRT, TROUSERS, RUBBER SHOES, RUBBER

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GLOVES, AND RUBBER APRON.

OTHER PROTECTIVE MEASURES: AN EYEWASH AND SAFETY SHOWER SHOULD BE NEARBY AND READY FOR USE.

-----FIRE AND EXPLOSION INFORMATION-----

FLASH POINT, DEG F: NONE FLAMMABLE LIMITS IN AIR, %

METHOD USED: N/A LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIA: USE WATER SPRAY, DRY CHEMICAL OR CO2.

SPECIAL FIRE FIGHTING PROCEDURES: FIRE FIGHTERS SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS AND COMPLETE PROTECTIVE CLOTHING. USE WATER SPRAY TO COOL NEARBY CONTAINERS AND STRUCTURES EXPOSED TO FIRE.

UNUSUAL FIRE AND EXPLOSION HAZARDS: OXIDIZER. AVOID CONTACT WITH ORGANIC MATERIALS.

------HAZARDOUS REACTIVITY-----

STABILITY: STABLE POLYMERIZATION: WILL NOT OCCUR
CONDITIONS TO AVOID: NONE

MATERIALS TO AVOID: AVOID CONTACT WITH ORGANIC MATERIALS, OILS, GREASES AND OXIDIZING OR REDUCING MATERIALS. THIS PRODUCT IS A MILD OXIDIZER IN SOLUTION BUT A STRONG OXIDIZER IN HIGHLY ACIDIC SOLUTIONS.

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

ACTION TO TAKE FOR SPILLS OR LEAKS: WEAR PROTECTIVE EQUIPMENT INCLUDING RUBBER BOOTS, RUBBER GLOVES, RUBBER APRON, CHEMICAL GOGGLES, AND APPROPRIATE RESPIRATORY PROTECTION. FOR SMALL SPILLS, SWEEP UP AND DISPOSE OF IN DOT-APPROVED WASTE CONTAINERS. FOR LARGE SPILLS, SHOVEL INTO DOT-APPROVED WASTE CONTAINERS. NEVER FLUSH OR SWEEP SPILLS INTO SEWER OR STORM DRAINS. KEEP OUT OF SURFACE WATERS AND SOIL. COMPLY WITH ALL APPLICABLE GOVERNMENTAL REGULATIONS ON SPILL REPORTING, AND HANDLING AND DISPOSAL OF WASTE.

DISPOSAL METHODS: DISPOSE OF CONTAMINATED PRODUCT AND MATERIALS USED IN CLEANING UP SPILLS OR LEAKS IN A MANNER APPROVED FOR THIS MATERIAL.

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CONSULT APPROPRIATE FEDERAL, STATE AND LOCAL REGULATORY AGENCIES TO ASCERTAIN PROPER DISPOSAL PROCEDURES.

NOTE: EMPTY CONTAINERS CAN HAVE RESIDUES, GASES AND MISTS AND ARE SUBJECT TO PROPER WASTE DISPOSAL, AS ABOVE.

STORAGE AND HANDLING PRECAUTIONS: STORE IN A COOL, DRY PLACE. STORE AWAY FROM ALL OTHER CHEMICALS AND POTENTIAL SOURCES OF CONTAMINATION. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. DO NOT USE PRESSURE TO EMPTY CONTAINER. WASH THOROUGHLY AFTER HANDLING. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING.

REPAIR AND MAINTENANCE PRECAUTIONS: DO NOT CUT, GRIND, WELD, OR DRILL ON OR NEAR THIS CONTAINER.

OTHER PRECAUTIONS: CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, WILL RETAIN PRODUCT RESIDUE AND VAPORS. ALWAYS OBEY HAZARD WARNINGS AND HANDLE EMPTY CONTAINERS AS IF THEY WERE FULL.

-----FOR ADDITIONAL INFORMATION-----

CONTACT DOUGLAS EISNER, TECHNICAL DIRECTOR, MCKESSON CHEMICAL COMPANY DURING BUSINESS HOURS, PACIFIC TIME (415)983-9214

----NOTICE----

ALL INFORMATION, RECOMMENDATIONS, AND SUGGESTIONS APPEARING HEREIN CONCERNING THIS PRODUCT ARE BASED UPON DATA OBTAINED FROM THE MANUFACTURER AND/OR RECOGNIZED TECHNICAL SOURCES; HOWEVER, MCKESSON CHEMICAL COMPANY ("MCC") MAKES NO WARRANTY, REPRESENTATION OR GUARANTY AS TO THE ACCURACY, SUFFICIENCY OR COMPLETENESS OF THE MATERIAL SET. FORTH HEREIN. IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE SAFETY, TOXICITY AND SUITABILITY OF HIS OWN USE, HANDLING AND DISPOSAL OF THE PRODUCT. ADDITIONAL PRODUCT LITERATURE MAY BE AVAILABLE UPON REQUEST. SINCE ACTUAL USE BY OTHERS IS BEYOND OUR CONTROL, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE BY MCC AS TO THE EFFECTS OF SUCH USE, THE RESULTS TO BE OBTAINED OR THE SAFETY AND TOXICITY OF THE PRODUCT, NOR DOES MCC ASSUME ANY LIABILITY ARISING OUT OF USE BY OTHERS OF THE PRODUCT REFERRED TO HEREIN. THE DATA IN THIS MSDS RELATE ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND DO NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PROCESS.

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